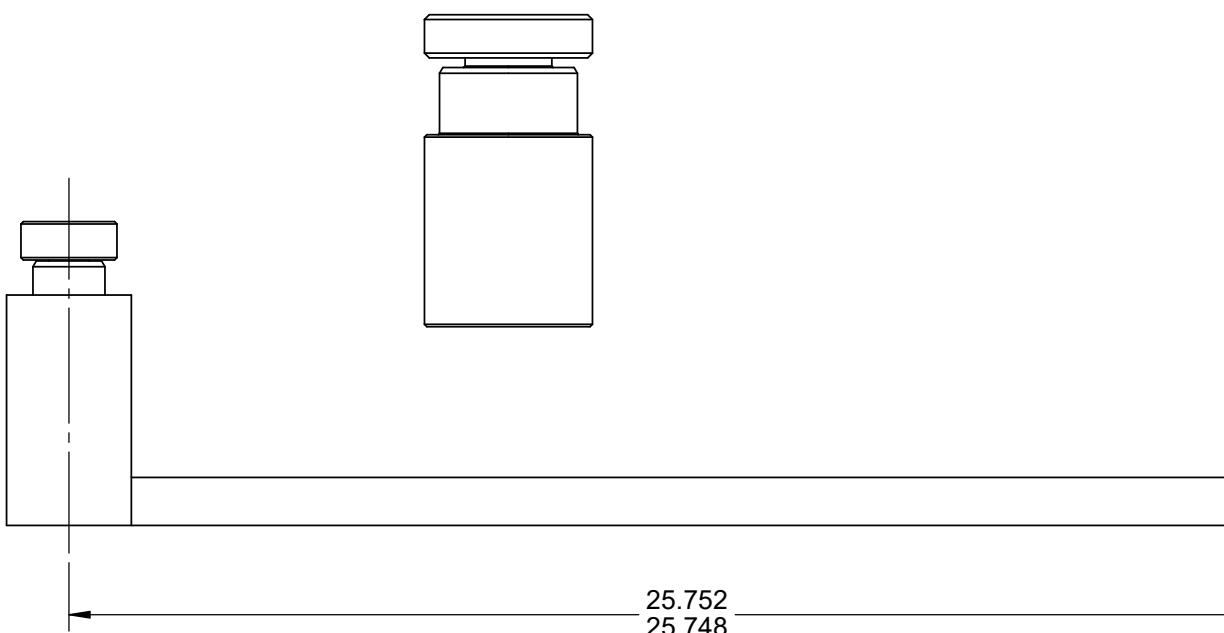


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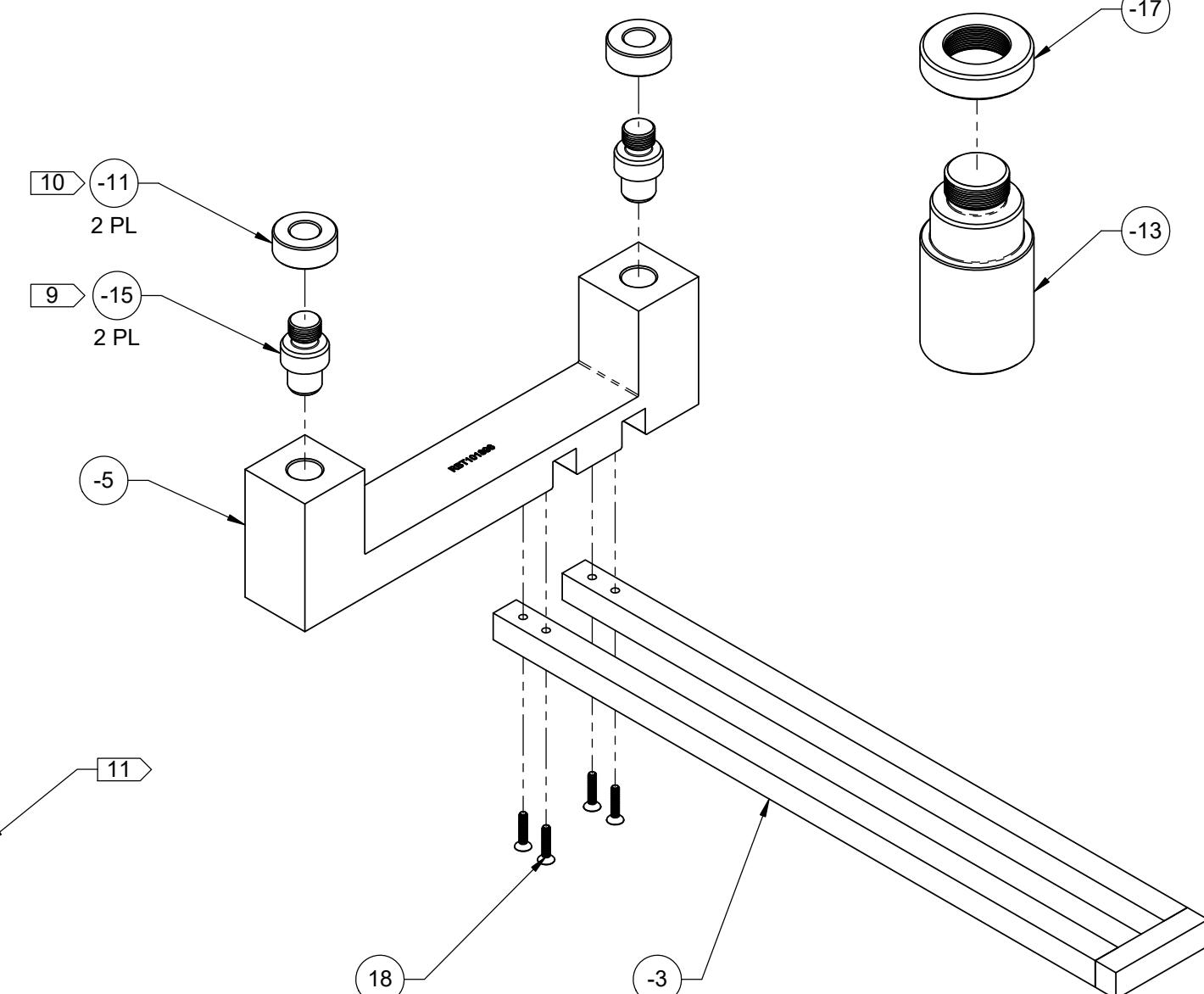
ITEM #	QTY.	PART #	PART TITLE
-3	1	RB T101896-3	BAR WELDED ASSY
-5	1	RB T101896-5	BASE
-11	2	RB T101896-11	SPINDLE NUT
-13	1	RB T101896-13	GRIP PIN
-15	2	RB T101896-15	SPINDLE PIN
-17	1	RB T101896-17	GRIP NUT
18	4	McMaster#91253A544 OR EQUIV.	COUNTERSUNK SCREW, 1/4-20 X 1-1/4 LG



RB T101896 M/R GRIP SPACING TOOL

NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: $X.X = +/- 0.1"$ / $+/- 1^\circ$
 $X.XX = +/- 0.01"$ / $+/- 0.5^\circ$
 $X.XXX = +/- 0.005"$ / $+/- 0.1^\circ$
 $X.XXXX = +/- 0.0005"$ / $+/- 0.05^\circ$
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: N/A
- 7) IDENTIFICATION: N/A
- 8) APPLY LOCTITE 262 / 263 ON THE THREADS OF ITEM 18 THEN ASSEMBLE AS SHOWN AND TORQUE TO 40-50 IN-LBS
- 9) APPLY CLEAR MULTIPURPOSE LOCTITE ON MATING SURFACES THEN PRESS FIT ITEM -5 WITH ITEM -15 AND REMOVES EXCESS LOCTITE
- 10) INSTALL HAND TIGHT
- 11) REMOVE MATERIAL FROM THIS FACE IF NECESSARY TO ACHIEVE REQUIRED DIMENSION, SURFACE FINISH OF 32 RA MICROINCH (N6) OR BETTER IS REQUIRED



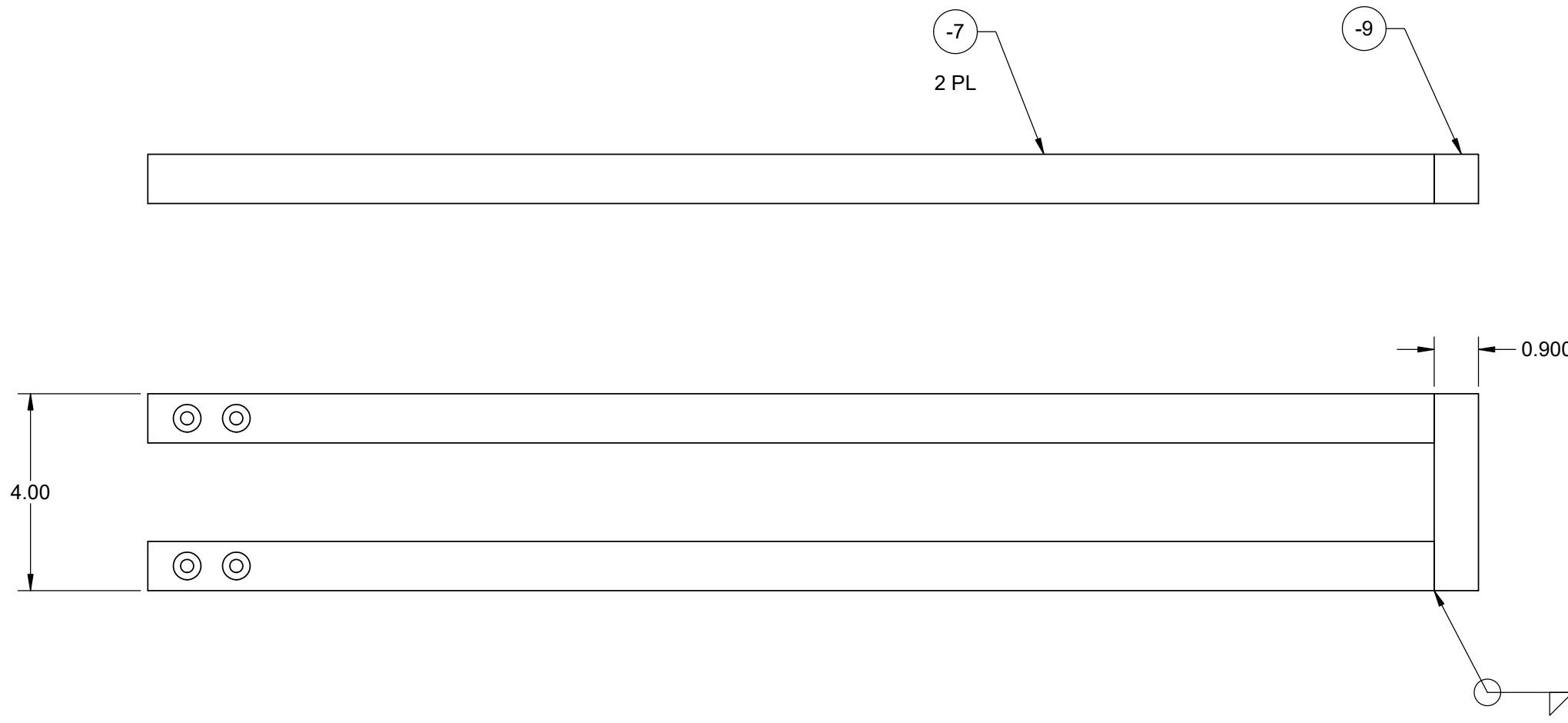
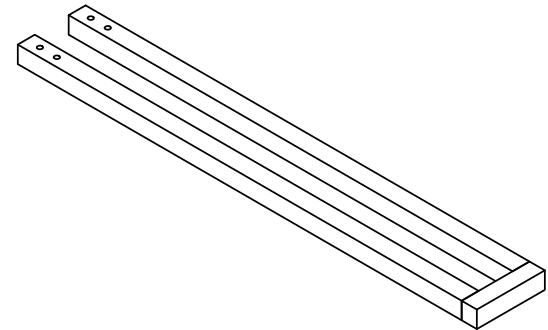
RELEASED

A	NEW ISSUE	18-727	KT
REV.	DESCRIPTION	ECN #	BY
DESIGN	KT	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	KPT		
CHECKED	ML		
MFG. APPR.	DP		
APPROVED	<i>M. Lee</i>	TOOL PART #	RB T101896
		REV. A	SHEET 1 OF 9
		TITLE	M/R GRIP SPACING TOOL
		SCALE	NTS
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8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

ITEM #	QTY	PART #	PART TITLE
-7	2	RBT101896-7	SIDE BAR
-9	1	RBT101896-9	END BAR



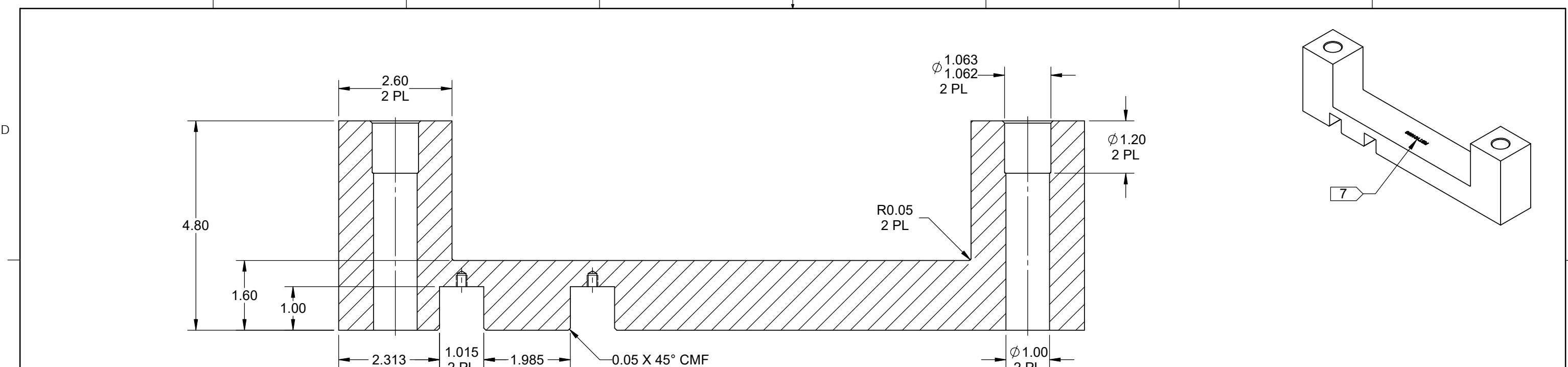
NOTES:
 1) MATERIAL: N/A
 2) HEAT TREAT: N/A
 3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
 (DO NOT APPLY FINISH UNTIL DIMENSIONAL CHECK OF ASSEMBLY IS COMPLETE, REF SHEET 1)
 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
 X.XX = +/- 0.01" / +/- 0.5°
 X.XXX = +/- 0.005" / +/- 0.1°
 X.XXXX = +/- 0.0005" / +/- 0.05°
 PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 6) BREAK SHARP EDGES: N/A
 7) IDENTIFICATION: N/A
 8) COUNTERSUNK HOLES MUST BE ON THE SAME SIDE

RELEASED

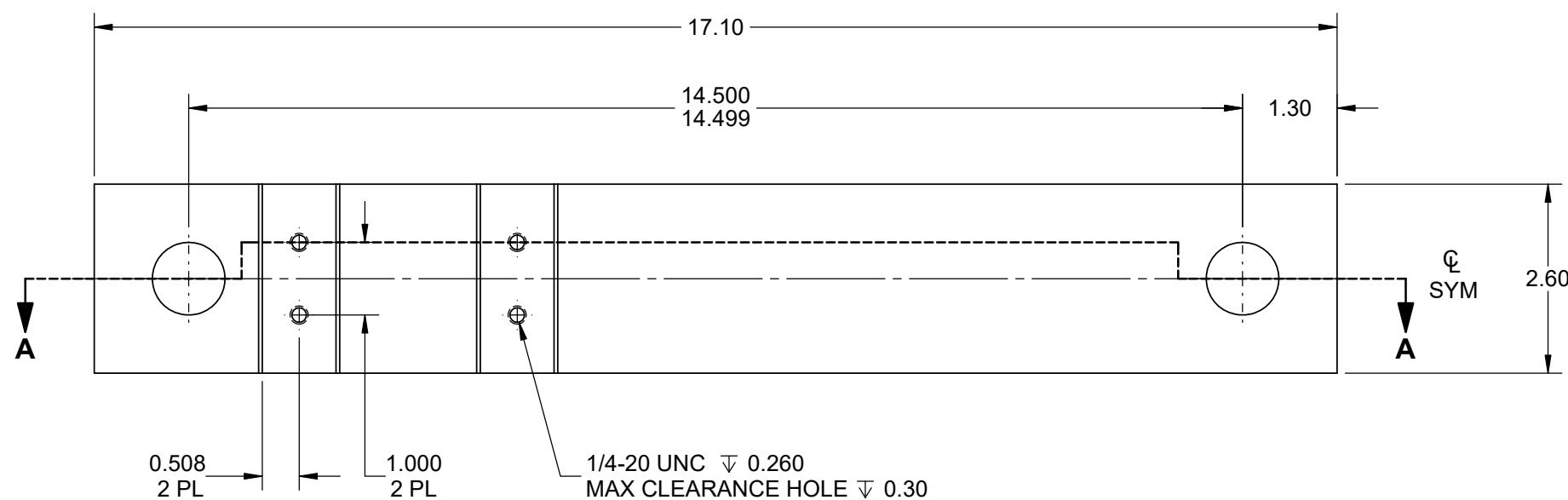
DESIGN KT
 DRAWN KPT
 CHECKED ML
 MFG. APPR. DP
 APPROVED *M.Lee*
 DATE 5/28/2018

DART AEROSPACE LTD
 HAWKESBURY, ONTARIO, CANADA
 TOOL PART # RB T101896 REV. A
 SHEET 2 OF 9
 TITLE M/R GRIP SPACING TOOL NTS
 SCALE
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8 7 6 5 4 3 2 1



SECTION A-A



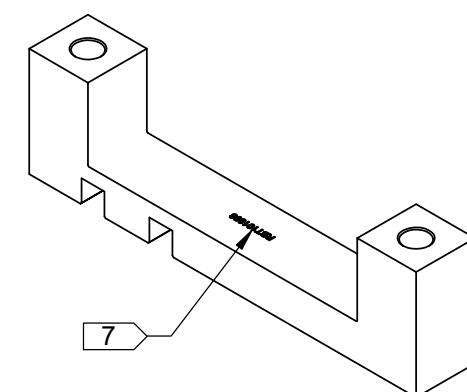
RB T101896-5 BASE

NOTES:

- 1) MATERIAL: 4140/4142 (28-32 RC)
- 2) HEAT TREAT: N/A
- 3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005" TO 0.010"
- 7) IDENTIFICATION: MACHINE ENGRAVE PER CAD MODEL AS SHOWN OR DOT MARK T/N AS SHOWN

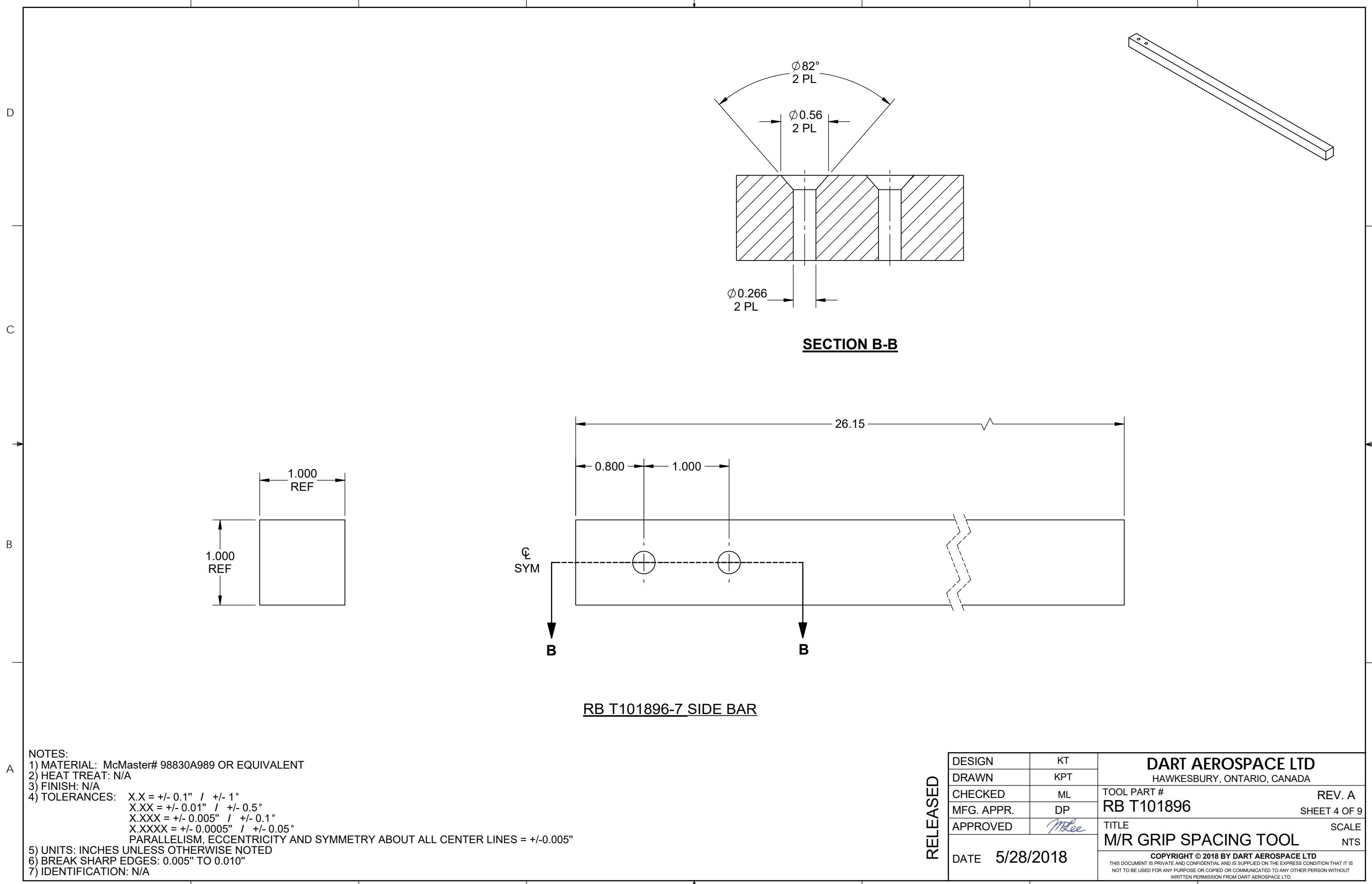
RELEASED

DATE 5/28/2018



DESIGN	KT	DART AEROSPACE LTD
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA
CHECKED	ML	TOOL PART #
MFG. APPR.	DP	RB T101896
APPROVED	<i>MLee</i>	REV. A
		SHEET 3 OF 9
TITLE		SCALE
M/R GRIP SPACING TOOL		NTS
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8 7 6 5 4 3 2 1

D

D

C

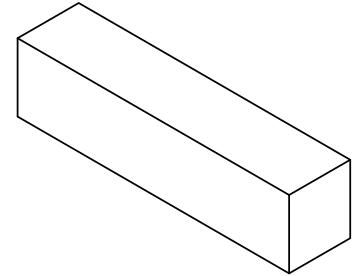
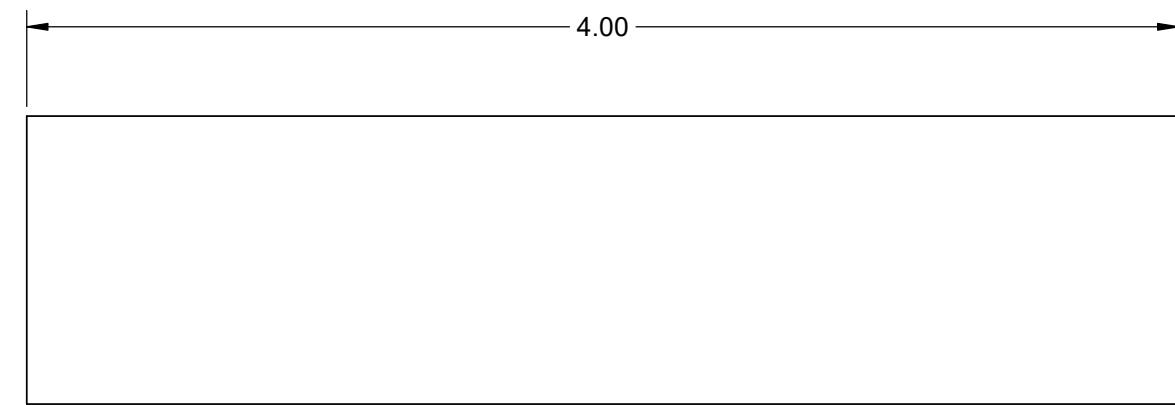
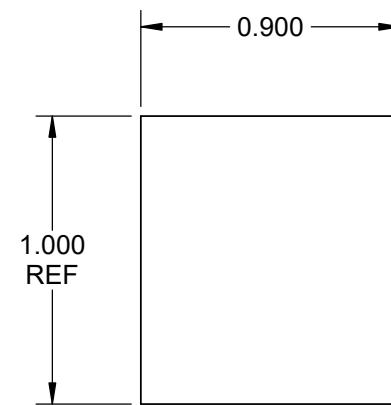
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RB T101896-9 END BAR

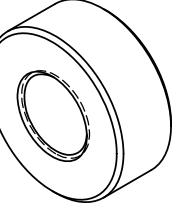
NOTES:

- 1) MATERIAL: McMaster# 98830A989 OR EQUIVALENT
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005" TO 0.010"
- 7) IDENTIFICATION: N/A

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DESIGN KT
DRAWN KPT
CHECKED ML
MFG. APPR. DP
APPROVED *MLee*
DATE 5/28/2018

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
TOOL PART # RB T101896 REV. A
SHEET 5 OF 9
TITLE M/R GRIP SPACING TOOL NTS
SCALE
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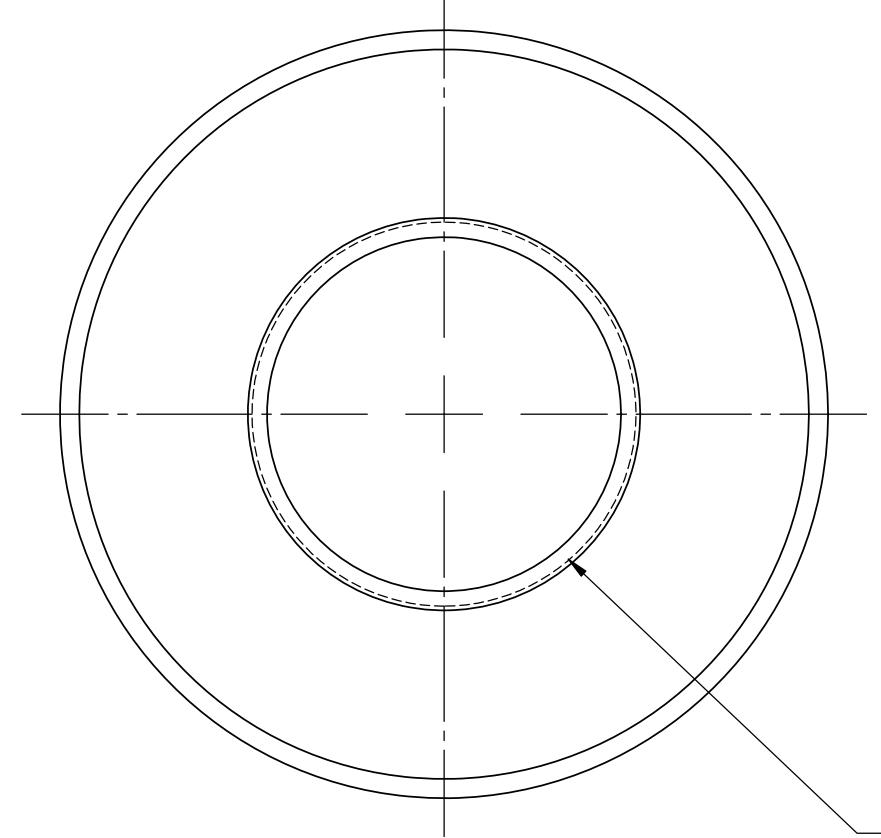
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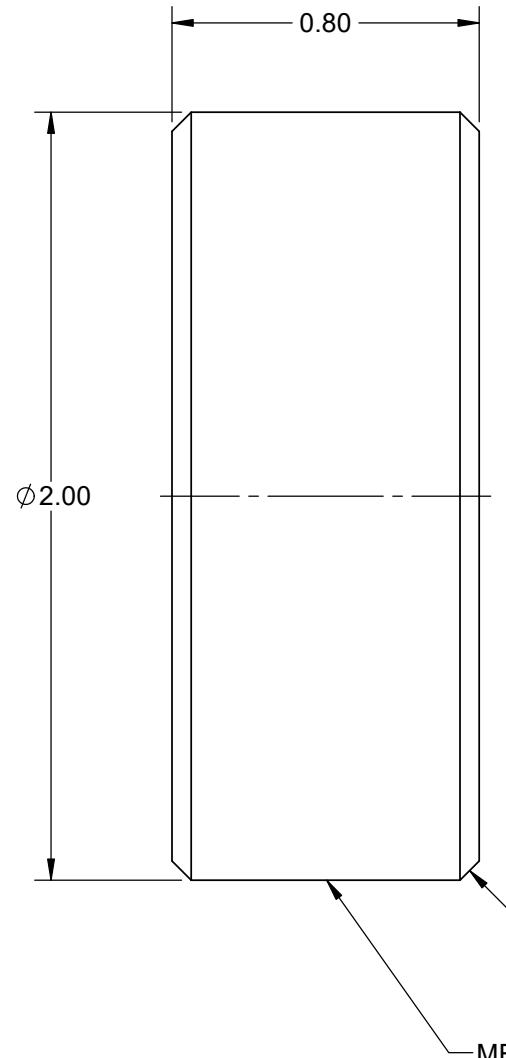
C

B

B



1-12 UNF-3B



Ø2.00

0.80

0.05 X 45° CMF
4 PL

MEDIUM DIAMOND KNURL

RB T101896-11 SPINDLE NUT

NOTES:

- 1) MATERIAL: 4140/4142 (28-32 RC)
- 2) HEAT TREAT: N/A
- 3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
- 4) TOLERANCES: $X.X = +/- 0.1" / +/- 1^\circ$
 $X.XX = +/- 0.01" / +/- 0.5^\circ$
 $X.XXX = +/- 0.005" / +/- 0.1^\circ$
 $X.XXXX = +/- 0.0005" / +/- 0.05^\circ$
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005" TO 0.010"
- 7) IDENTIFICATION: N/A

RELEASED

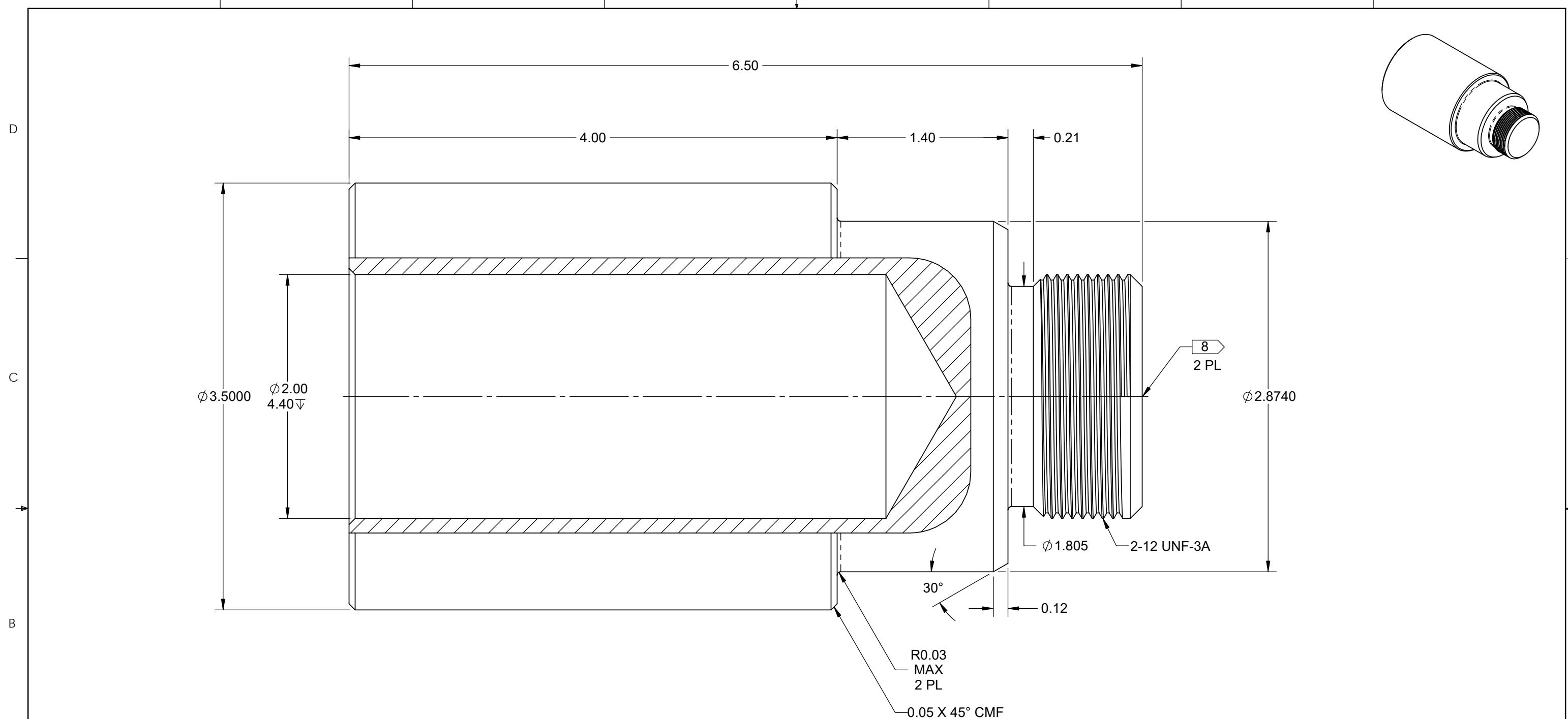
DESIGN	KT
DRAWN	KPT
CHECKED	ML
MFG. APPR.	DP
APPROVED	<i>M. Lee</i>
DATE 5/28/2018	

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HAWKESBURY, ONTARIO, CANADA	
TOOL PART #	REV. A
RB T101896	SHEET 6 OF 9
TITLE	
M/R GRIP SPACING TOOL	
NTS	
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A

8 7 6 5 4 3 2 1



NOTES:

1) MATERIAL: 4140/4142 (28-32 RC)

2) HEAT TREAT: N/A

3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2

4) TOLERANCES: X.X = +/- 0.1" / +/- 1°

X.XX = +/- 0.01" / +/- 0.5°

X.XXX = +/- 0.005" / +/- 0.1°

X.XXXX = +/- 0.0005" / +/- 0.05°

PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"

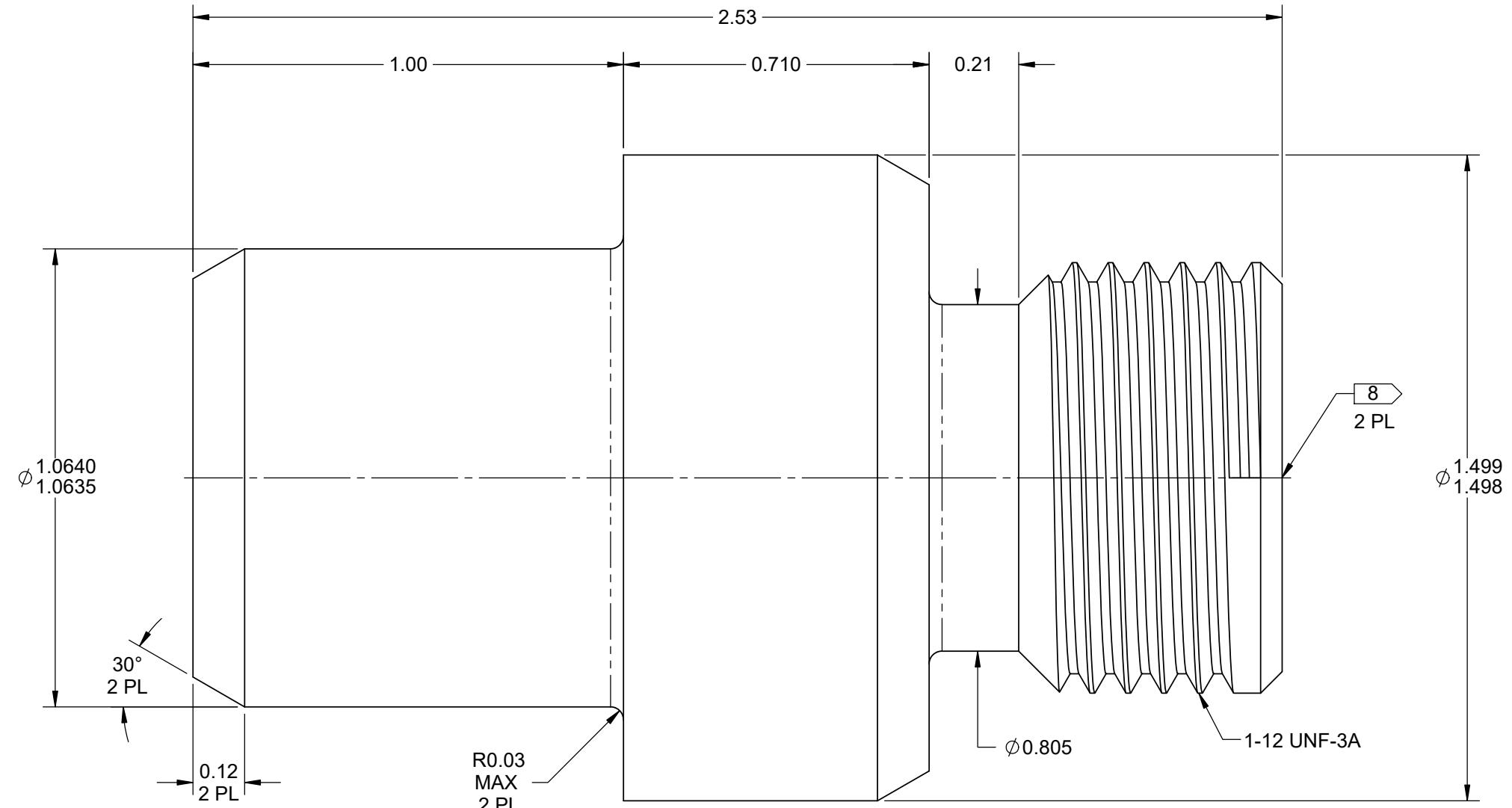
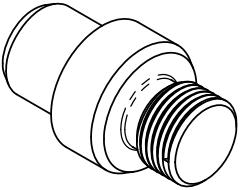
5) UNITS: INCHES UNLESS OTHERWISE NOTED

6) BREAK SHARP EDGES: 0.005" TO 0.010"

7) IDENTIFICATION: N/A

8) CENTER DRILL IS ACCEPTABLE

DESIGN	KT	DART AEROSPACE LTD
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA
CHECKED	ML	TOOL PART #
MFG. APPR.	DP	REV. A
APPROVED	<i>Mee</i>	RB T101896
		SHEET 7 OF 9
RELEASED		TITLE
		M/R GRIP SPACING TOOL
DATE	5/28/2018	SCALE
		NTS
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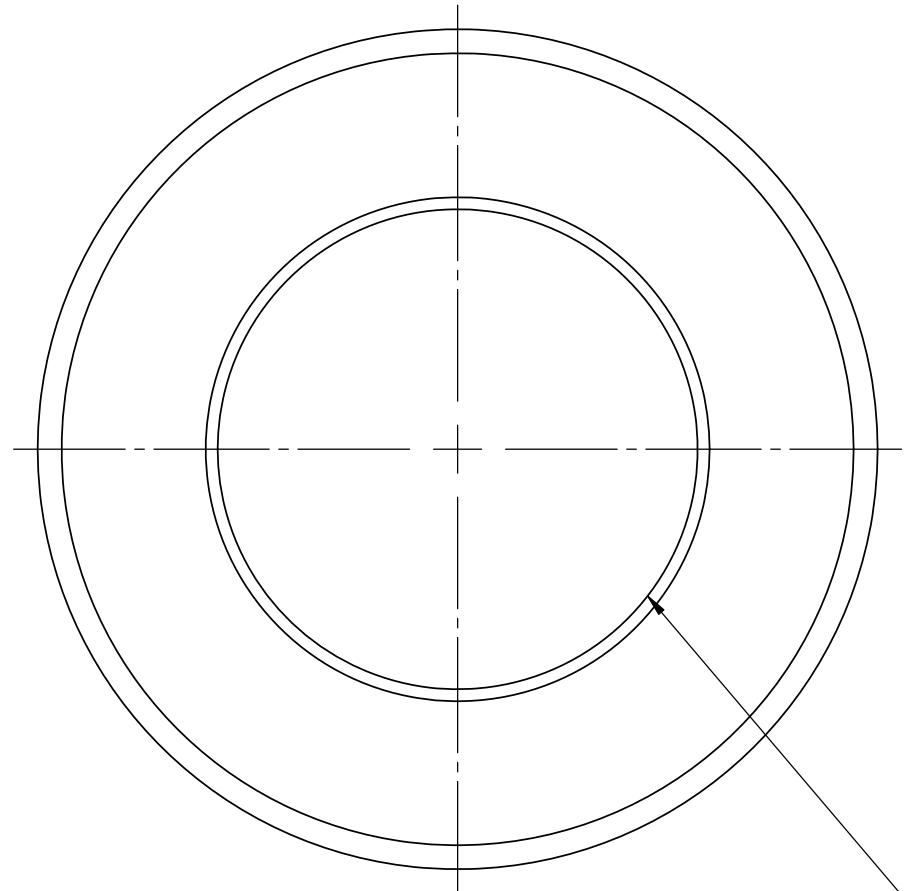
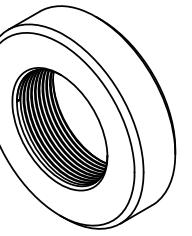
NOTES:
 1) MATERIAL: 4140/4142 (28-32 RC)
 2) HEAT TREAT: N/A
 3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
 X.XX = +/- 0.01" / +/- 0.5°
 X.XXX = +/- 0.005" / +/- 0.1°
 X.XXXX = +/- 0.0005" / +/- 0.05°
 PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 6) BREAK SHARP EDGES: 0.005" TO 0.010"
 7) IDENTIFICATION: N/A
 8) CENTER DRILL IS ACCEPTABLE

RELEASED

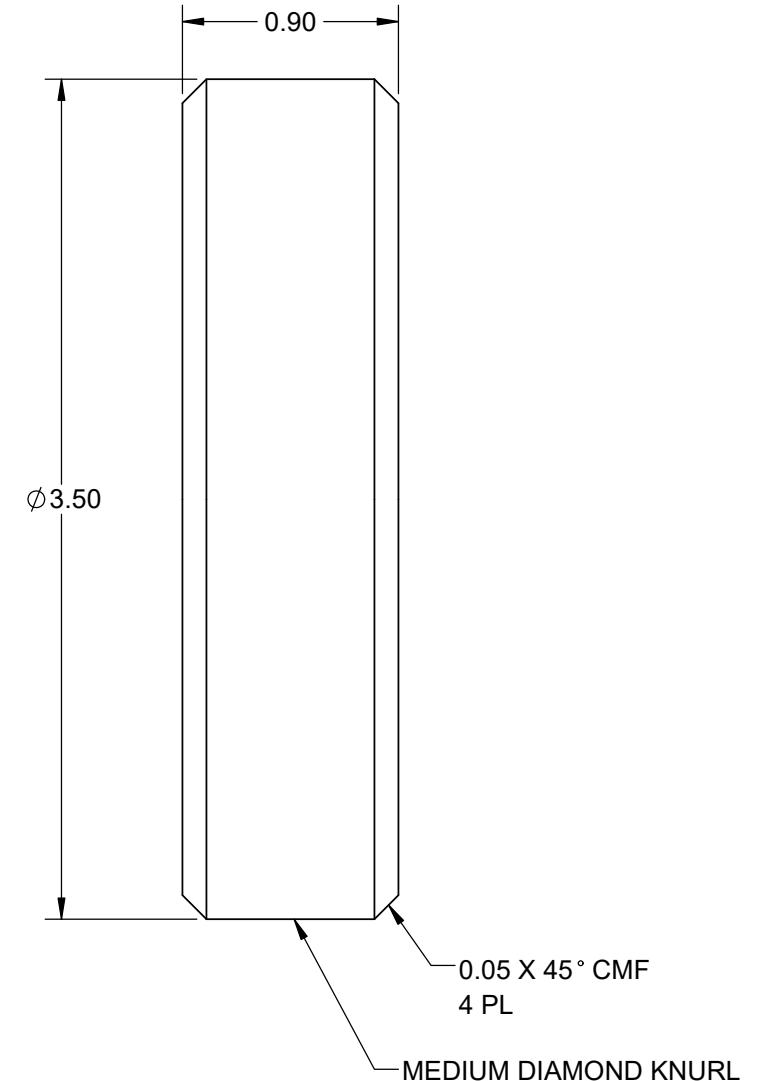
DESIGN	KT
DRAWN	KPT
CHECKED	ML
MFG. APPR.	DP
APPROVED	<i>M.Lee</i>
DATE 5/28/2018	

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HAWKESBURY, ONTARIO, CANADA	
TOOL PART #	REV. A
RB T101896	SHEET 8 OF 9
TITLE	
M/R GRIP SPACING TOOL	
NTS	

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2-12 UNF-3B



RB T101896-17 GRIP NUT

NOTES:
1) MATERIAL: 4140/4142 (28-32 RC)
2) HEAT TREAT: N/A
3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) BREAK SHARP EDGES: 0.005" TO 0.010"
7) IDENTIFICATION: N/A

RELEASED

DATE 5/28/2018

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
TOOL PART # RB T101896 REV. A
SHEET 9 OF 9
TITLE M/R GRIP SPACING TOOL NTS
SCALE
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